REMARKS

Applicant amends claim 38 to add a period to the end of the claim. This period in no way alters the meaning of the claim and should be entered under 37 C.F.R. §1.116(b)(2). Applicant agrees with the Examiner's comment on page 2 of the outstanding Office Action that claims 16-28, 32-34, 36, and 38 are pending.

35 U.S.C. §103(a) Rejections

The Examiner rejected claims 16-18, 21-25, 28, 32, 34, and 38 under 103(a) being unpatentable over Rune (U.S. Patent Publication no. 2004/0167988) in view of Jou, 2005/0036489. Applicant respectfully disagrees. The currently pending independent claims are claims 16, 21, 22, and 32.

Claim 16 is representative and is reproduced below.

> A method comprising:
>
> checking a destination address of a received packet;
>
> comparing the destination address of the packet with at least one predetermined multicast and/or broadcast address;
>
> preventing the transmission of the packet to a first device in response to the addresses matching; and
>
> forwarding the packet to at least the first device in response to the addresses not matching.

The Examiner states the following:

> However Rune does not explicitly teach comparing the destination address of the packet with at least one predetermined multicast and/or broadcast address; preventing, the transmission of the packet to a first device in response to the addresses matching; in response to the address not matching. However, Jou teaches comparing the destination

Outstanding Office Action, page 3. Therefore, the Examiner admits that Rune does not disclose this subject matter.

The Examiner then points to Jou for alleged disclosure of this subject matter. However, Jou does not disclose this subject matter for at least the following reasons.

Jou does not disclose the subject matter alleged by the Examiner: First Reason

The instant application has a priority date of 6 February 2004 under, e.g., M.P.E.P. §201.13, 35 U.S.C. §119 and 37 C.F.R. §1.55. That is, the priority date of 6 February 2004 is based on a Finnish application filed on that date, which later became an international (P.C.T) application filed on 4 February 2005. The international application entered national stage in the U.S. on 10 October 2006 as the instant application. Therefore, the priority date of the instant invention is 6 February 2004.

Turning to Jou, the published application 2005/0036489 was filed on 10 August 2004, after the priority date of 6 February 2004 of the instant application. Jou's published application claims priority from provisional application 60/495,186, a copy of which is enclosed herein as Appendix A. The Jou provisional application was filed on 15 August 2003. Therefore, for material to be cited against the instant application, that material must exist prior to the priority date of the instant application of 6 February 2006.

The Examiner cites to paragraph 29 of Jou's published application, which states the following:

> [0029] FIG. 5 illustrates the processing flow chart on receiving a broadcast frame. In step 500, a wireless transport device receives a broadcast frame. The wireless transport device will determine whether or not the DA filed is the same as the local MAC address of this device (510). If positive, the wireless transport device drops the frame because it is an echoed frame (step 530). Otherwise, it uses Auxiliary Address to verify whether this frame is received through the correct neighbor, namely in step 520, to look up the route table. Subsequently, in step 540, the wireless transport device determines whether the TA address is the neighboring node the frame should come from.

> If positive, then the wireless transport device relays the frame or performs other process (550), otherwise, drops the frame (step 530).

The subject matter in this paragraph of Jou's published application does not appear in Jou's provisional application. In particular, the subject matter of "The wireless transport device will determine whether or not the DA [destination address] filed (sic?) is the same as the local MAC address of this device (510)" does not appear in Jou's provisional application. Therefore, this subject matter has the filing date (10 August 2004) of Jou's provisional application. The filing date (10 August 2004) of Jou's provisional application is after the priority date (6 February 2006) of the instant application, and therefore the cited subject matter in paragraph 29 of Jou's published application does not qualify as prior art under 35 U.S.C. §102.

Consequently, the sections cited by the Examiner of Jou's published application cannot be cited as prior art against the claims of the instant application. Because the Examiner admits that Rune does not disclose certain subject matter from the claims, and the subject matter supposedly disclosed in Jou's published application is not prior art against the independent claims, Applicant respectfully submits the 103(a) rejections against the independent claims must fail.

Jou does not disclose the subject matter alleged by the Examiner: Second Reason

Even if the cited sections of Jou's published application are prior art against the instant independent claims, Applicant respectfully submits that Jou's published application does not disclose the subject matter the Examiner asserts is disclosed by Jou's published application. For instance, the Examiner cites to paragraph 29 of Jou's published application (emphasis added):

> [0029] FIG. 5 illustrates the processing flow chart on receiving a broadcast frame. In step 500, a wireless transport device receives a broadcast frame. **The wireless transport device will determine whether or not the DA**

> **filed (sic?) is the same as the local MAC address of this device (510)**. ***If positive, the wireless transport device drops the frame because it is an echoed frame (step 530).*** Otherwise, it uses Auxiliary Address to verify whether this frame is received through the correct neighbor, namely in step 520, to look up the route table. Subsequently, in step 540, the wireless transport device determines whether the TA address is the neighboring node the frame should come from. If positive, then the wireless transport device relays the frame or performs other process (550), otherwise, drops the frame (step 530).

This section of Jou's published application indicates that a determination is made of whether or not the DA (destination address) is the same as the local MAC (media access control) address of the device. It is known in the art that a MAC address is a unique identifier assigned to network interfaces for communications on the physical network segment. What the sentence "If positive, the wireless transport device drops the frame because it is an echoed frame (step 530)" appears to mean is that the current device previously transmitted the frame, and the frame is being echoed back to the device. Thus, the device put the MAC address of itself into the frame, and transmitted the frame. When the device receives a frame that has its MAC address, the device then determines the frame is an echoed frame and can be ignored. See also paragraph 22 of Jou's published application (emphasis added):

> [0022] Depending on the method in unicast routing path calculation, the forwarding table for unicast frames can be used as the table that is used to look up the incoming neighboring device for a broadcast frame originator (i.e. FIG. 2). In this case, there is no extra effort in generating the broadcast frame reduction table. The other method to reduce the resource spending on broadcast frames is to reduce the processing effort for echoed broadcast frames. For example, a device X either sends or relays a broadcast frame to its neighbors N1 and N2. When N1 and N2 relay the frame, most likely device X will receive both the frames. Using the method mentioned earlier can cause the frames being dropped eventually. However, a table lookup for each frame will be needed for device X. To relieve the processing load, N1 and N2 can both add the address of X inside the frame. When X receives a broadcast frame, it can check whether the frame is echoed from itself. If so, the frame can be dropped immediately without processing. **Therefore, to filter out echo frames, broadcast frames have to carry the address information of previous hop in the transmitted frame.** This can be achieved by using an unused field in the 802.11 MAC header. In broadcasting, the Address 3 (DA, destination address) of FIG. 3 is not used. The "previous

hop" information is carried in the location the Address 3 (DA, destination address).

Moreover, the MAC address of the device is not a "broadcast address", as this is the address of the device itself: "The wireless transport device will determine whether or not the DA filed (sic?) **is the same as the local MAC address of this device** (510)." Paragraph 29 of Jou's published application. See also paragraph 22 of Jou's published application: "Therefore, to filter out echo frames, broadcast frames have to carry the address information of [the] **previous hop** in the transmitted frame." Another device receiving the frame with the MAC address of the previous hop is not going to determine the MAC address is a broadcast address or use the MAC address as a broadcast. Furthermore, it is known that a broadcast address in MAC (e.g., 802.11) is all ones, e.g., FFFFFFFF for 32 bits in hexadecimal. See paragraph 27 of Jou, or http://en.wikipedia.org/wiki/MAC_address ("Packets sent to the broadcast address, all one bits, are received by all stations on a local area network. In hexadecimal the broadcast address would be FF:FF:FF:FF:FF:FF"). This means that the MAC address of a device will not be the same as the broadcast address.

Thus, Jou's published application does not disclose at least the subject matter of "comparing the destination address of the packet with at least one predetermined multicast and/or broadcast address", "preventing the transmission of the packet to a first device in response to the addresses matching", "forwarding the packet to at least the first device in response to the addresses not matching", as recited in claim 16 and generally in the other independent claims.

Because the Examiner admits that Rune does not disclose certain subject matter in the claims, and because Jou's published application does not disclose this certain subject matter, Applicant respectfully submits the 103(a) rejections against the independent claims must fail.

Rune

Regarding Rune, Applicant respectfully submits that one skilled in the art would not combine Rune and Jou's published application in the manner suggested by the Examiner. What Rune states regarding broadcast types is the following (emphasis added)

> [0123] FIGS. 10-15 illustrate the coverage areas of the different broadcast types. The NAPSA broadcast type, as the name implies, is used to broadcast packets to a single NAPSA. This is illustrated in FIG. 10 (which is similar to FIG. 8), where each isolated gray area 1000-1008 represents a different NAPSA broadcast area. **A NAPSA broadcast packet is not allowed to leave its broadcast area.** Thus, NAPSA broadcast packets are not forwarded to the LAN and are not allowed to cross a NAPSA border.
>
> [0124] The scatternet broadcast type, as the name implies, is used to broadcast packets within the scatternet. This arrangement is illustrated in FIG. 11, where each contiguous gray area 1100-1106 represents different broadcast areas for a scatternet broadcast packet. **Such broadcast packets are not forwarded to the LAN.** When more than one AD exists in a scatternet, the scatternet broadcast packets carrying higher layer protocol packets, i.e. packets from protocol layers above the NAL, e.g. IP, are not allowed to cross an AD border. These packets are consequently limited to a part of the scatternet belonging to the same AD. Scatternet broadcast packets that are not carrying packets from higher layer protocols, such as NAL control packets, however, are allowed to cross AD borders and may therefore still be broadcast in the whole scatternet. A NAL control packet does not encapsulate data from a higher protocol layer and is only used to transfer signaling and control information between NAL entities in different Bluetooth nodes. This arrangement is illustrated in FIG. 12, where each contiguous gray area 1200 and 1202 represents the broadcast area of an NAL control packet.
>
> [0125] The AD broadcast type covers the LAN and any attached scatternets that are associated with the same AD as the LAN. These broadcast packets are forwarded by NAPs from/to the LAN to/from the scatternet, but the NAPSA borders in the scatternet are respected. This arrangement is illustrated in FIG. 13, where each contiguous gray area 1300-1304 represents the broadcast area of an AD broadcast packet. An AD broadcast packet is used to reach all the nodes in the AD (including the nodes on the LAN). All broadcast packets that are forwarded from the LAN to the scatternet are sent using the AD broadcast type.

> [0126] The scatternet-AD broadcast type is a special broadcast type used only for route requests. This broadcast type is, as the name implies, a combination of the scatternet broadcast type and the AD broadcast type. The scatternet-AD broadcast packets are distributed through the entire scatternet without respecting the NAPSA borders, as well as the entire AD via the NAPs. However, the NAPSA borders are respected after a scatternet-AD broadcast packet re-enters the scatternet via a NAP.

Thus, in Rune, the NAPSA broadcast packets are not forward to a scatternet, and the scatternet broadcast packets are not forwarded to the LAN. However, these packets are not forwarded based on their ***broadcast type***, which is defined by an indicator in a NAL (network adaptive layer) header (emphasis added):

> [0122] In addition to the routing protocol discussed above, the NAL also has a broadcast mechanism. (Note that broadcasting on the LAN is inherent in the shared medium and no "broadcast" mechanism is needed.) In accordance with embodiments of the invention, the NAL includes four different types of broadcasts: NAPSA broadcast, scatternet broadcast, AD broadcast, and scatternet-AD broadcast. The differences between broadcast types lie in the scope of the distribution and how the NAPs and other nodes at the NAPSA borders treat the different broadcast packets. **Note that the broadcast type is defined by an indicator in the NAL header.** In that sense, these different broadcast types can only exist in the scatternet. On the other hand, an Ethernet broadcast packet (originated on the LAN) that is forwarded from the LAN to the scatternet becomes an AD broadcast packet when it is forwarded into the scatternet. The broadcast type may be indicated in the NAL header, for example, with a two-bit indicator, as indicated in Table 2.

Thus, the broadcast type is defined in Rune by an indicator in the NAL header.

It is clear that filtering of broadcast packets in Rune is performed without examination of destination addresses for packets (emphasis added):

> [0196] The second main component of the invention is the packet filtering mechanism. As already mentioned, a NAP does not indiscriminately forward packets. Instead, it uses the packet filtering mechanisms (see FIG. 9) to reduce the number of unnecessarily forwarded packets. For example, forwarding is unnecessary when both the source and the destination node are located on the same side of the NAP. Furthermore, NAL broadcast packets of the NAPSA broadcast type and the scatternet broadcast type are always blocked by the packet filtering mechanisms. **Only those**

packets that pass the packet filtering mechanisms are forwarded to the scatternet. The generated useless traffic is a waste of resources, especially so in the scatternet where radio resources and processing resources are scarce. Furthermore, this could lead to the scatternet being flooded by traffic from the LAN with its shared medium and much higher capacity. Therefore, a packet filtering mechanism is needed in order to limit the forwarding of unnecessary traffic. The packet filtering is based on the destination address and the NAL packet type. Filtering may also be based on higher layer protocols.

[0197] The NAL packet type filtering in the NAP is performed in the packet type filtering function 912, which is present only on the scatternet side of the NAP. **The NAL packet type filtering**, in some embodiments of the invention, **is very simple: all *NAPSA broadcast type and scatternet broadcast type packets* are passed by the packet type filtering function 912 to the NAP-IPH, while *all other packet types* are passed to the address filtering function 914.**

Thus, packets having the NAPSA broadcast and scatternet broadcast ***types*** are filtered, and **all other packet *types*** are passed to an address filtering function, for forwarding to the correct address. See also, e.g., paragraphs [0222], [0224], [0237] of Rune.

As is noted in paragraphs [0125] and [0197] from Rune above, packets having the AD broadcast type are forwarded, as are packets having the scatternet-AD broadcast type (see paragraphs [0126] and [0197]).

Regarding multicast addresses, these appear to be related to route entries. See, e.g., the following:

[0173] When (and if) the NAP-B of a NAP receives an encapsulated non-ARP-route-request (via the NAP-PFL), the NAP processes the non-ARP-route-request just like any node would process a received non-ARP-route-request. Thus, the NAP forwards the non-ARP-route-request into the scatternet, unless it already has a route to the destination node, or unless the NAP itself is the destination node. In the latter case, the NAP can immediately return an encapsulated non-ARP-route-reply. Then the next hop node in the route entry for the source node is indicated as "another NAP." This indication may be just a general indication, or it may be a specific indication that includes a NAP **multicast address** or the specific source MAC address of the Ethernet packet that carried the received encapsulated ARP-route-request. The choice between general indication, NAP multicast address or source MAC

> address depends on whether broadcast packets, multicast packets or unicast packets are used to carry a corresponding encapsulated ARP-route-reply.

See also paragraphs [0156], [0186], and [0187] of Rune. There are additional references to "multicast" in Rune, but none of these references relate to the subject matter of "comparing the destination address of the packet with at least one predetermined multicast and/or broadcast address" and "preventing the transmission of the packet to a first device in response to the addresses matching" as recited in amended claim 16.

Applicant respectfully submit that this is further evidence that one skilled in the art would not combine Rune and Jou's published application in the manner suggested by the Examiner, as Rune is examining packet types while Jou's published application is looking for a MAC address in a received frame of a device that previously sent the frame. These do not appear reconcilable.

For at least this reason, the rejections of the independent claims should be withdrawn.

Dependent claims

The dependent claims are also patentable over the combination of Rune and O'Neill for at least the reasons given above.

Additional 35 U.S.C. §103(a) Rejections

The Examiner rejected other dependent claims. For instance, the Examiner stated the following:

4. Claims 19,20,26,27 and 33 rejected under 35 U.S.C. 103(a) as being unpatentable over Rune as applied to claims 16-18, 21-25, 28, 32, 34, and 38 above and further in view of Vasisht (US 2004/0133689).

Outstanding Office Action, page 10. The Examiner also stated the following:

7. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rune as applied to claims 16,18,21,22,25,28,29,31,32,34 and 35 above, and further in view of Tung (US 2006/0136562 A1) (herein after Tung).

Outstanding Office Action, page 13.

It is believed these two sets of rejections should use both Rune and Jou's published application in addition to Vasisht and Tung.

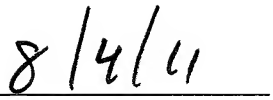
Regardless, because independent claims 16, 22, and 32 are patentable, the dependent claims are patentable for at least the reasons given above.

Conclusion

Based on the foregoing arguments, it should be apparent that the pending claims are thus allowable over the reference(s) cited by the Examiner, and the Examiner is respectfully requested to reconsider and remove the rejections. The Examiner is invited to call the undersigned attorney for any issues.

Respectfully submitted:

Robert J. Mauri
Reg. No.: 41,180



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Appendix A

Jou's Provisional Application 60/495,186, filed on 15 August 2003

PTO/SB/16 (08-03)
Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).

Express Mail Label No.

INVENTOR(S)

Given Name (first and middle [if any])	Family Name or Surname	Residence (City and either State or Foreign Country)
Tyan-Shu	Jou	Cary, NC

Additional inventors are being named on the 1 *separately numbered sheets attached hereto*

TITLE OF THE INVENTION (500 characters max)

Methods and Apparatus for Broadcast Traffic Reduction on a Wireless Transport Network

Direct all correspondence to: **CORRESPONDENCE ADDRESS**

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ENCLOSED APPLICATION PARTS *(check all that apply)*

☒ Specification *Number of Pages* 4
☒ Drawing(s) *Number of Sheets* 1
☐ Application Date Sheet. See 37 CFR 1.76
☐ CD(s), Number
☐ Other (specify)

METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT

☒ Applicant claims small entity status. See 37 CFR 1.27.
☐ A check or money order is enclosed to cover the filing fees.
☐ The Director is herby authorized to charge filing fees or credit any overpayment to Deposit Account Number:
☒ Payment by credit card. Form PTO-2038 is attached.

FILING FEE Amount ($): 80.00

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

☒ No.
☐ Yes, the name of the U.S. Government agency and the Government contract number are:

Respectfully submitted,

SIGNATURE Tyan-Shu Jou
TYPED or PRINTED NAME Tyan-Shu Jou
TELEPHONE 919-387-3653

Date Aug. 11, 2003
REGISTRATION NO.
(if appropriate)
Docket Number:

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

PROVISIONAL APPLICATION COVER SHEET
Additional Page

PTO/SB/16 (08-03)
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INVENTOR(S)/APPLICANT(S)		
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Number 1 of 1

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Methods and Apparatus for Broadcast Traffic Reduction on a Wireless Transport Network

References Cited

- US Patent Document 5,570,366, Baker, et al., "Broadcast/multicast filtering by the bridge-based access point," October 29, 1996.

- US Patent Document 6,549,786, R. Y. M. Cheung, "Method and apparatus for connecting a wireless LAN to a wired LAN," April 15, 2003.

Claims

The embodiments of the invention claim the following:

1. The method for a device to calculate a table that each entry contains the neighboring device from which a broadcast frame originated from a particular device can be received.

2. The method according to claim 1, further comprising the steps of:

   for broadcast frames originated from the particular device, only the ones relayed through the listed neighboring device can be accepted. Broadcast frames coming through incorrect neighboring device are duplicates and should be ignored or dropped.

3. The method according to claim 1, further comprising the steps of:

   carrying the name or address of the originator wireless transport device as part of the broadcast frames to facilitate the filtering on broadcast frames.

4. The method for a transport device when relays a broadcast frame, to add the address information of the previous hop from where the frame comes into the transmitted frame.

5. The method according to claim 4, wherein:

   When a wireless transport device receives a broadcast frame whose "previous hop" field contains its own address, the device can drop the frame without any further processing.

   For example, a device X either sends or relays a broadcast frame to its neighbors N1 and N2. When N1 and N2 relay the frame, they both add X in the "previous hop" field of the frame. Most likely device X will receive both these relayed frames from N1 and N2. With its address contained in the frame, device X can immediately realized it should drop the frames without processing.

6. The method to embed the announcement information of a newly associated wireless client of a transport device into a broadcast frame the client generates if it is the first frame from the client system into the network.

7. The election among the multiple edge devices connecting the wireless network to a wired network to enable only one edge device to relay broadcast traffic across the wired and wireless network.

Description

THE FIELD OF THE INVENTION

The present invention relates to communications systems that comprise wireless networks. The invention is particularly concerned with reducing transmission information frames on the wireless networks and across the wireless and wired border line and is most useful in networks requiring multi-hop wireless communication.

BACKGROUND OF THE INVENTION

A wireless transport network is a network comprises a plurality of wirelessly connected devices that are responsible for relaying traffic for associated mobile clients. An example of a wireless transport network is a plurality of IEEE 802.11 capable devices that provide transport service for IEEE 802.11 or Bluetooth capable clients such as laptop computers, PDA (personal digital assistant), and the like. The said network can further comprise one or more connections to a wired network through one or multiple edge devices. The edge devices are equipped and capable of both wireless and wired communication. An example is shown in FIG. 1.

In a wireless transport network, efficient reduction of unnecessary broadcast traffic is critical. The transmission medium (the air) by nature is shared, therefore broadcast is a convenient way of communication in wireless networks for there is no need to transmit multiple times for a multi-destined frame. Once an originator broadcasts a frame to all its neighboring devices, all, or some, of its neighboring devices will have to relay the frame for other remote devices. For any device that is a neighbor of multiple devices that are responsible for relaying broadcast frames, it receives multiple copies of the same frame. One simple example is once a device sends out a broadcast frame, it immediately receives multiple copies of the exact frame if there are multiple neighboring devices perform relay function for the frame. Unless a filtering method is implemented on the devices, in the worst case one single broadcast frame may be duplicated in an exponential growth fashion and saturate the network and waste device processing time. In the worst case, these frames may loop around the network until the end of their lives.

Reducing the unnecessary broadcast frames can prevent frame looping, reduce total traffic amount hence preserve network bandwidth, and save device processing effort.

PRIOR ART

Prior art techniques in saving bandwidth on wireless network include software algorithms to select relay nodes for broadcast traffic, and maintaining sequence numbers of frames originated from each device to discard duplicates.

US Patent number 5,570,366 describes a method to filter frames from a wired network to a wireless access point via configured protocol parameters.

Present invention provides more efficient methods to filter unnecessary broadcast traffic and the techniques are more suitable to be implemented in firmware or hardware to enhance forwarding throughput.

US Patent number 6,549,786 claims the mechanism to set up a plurality of wireless nodes and a plurality of wired-wireless edge access points to form a local area network. The internetworking edge access points are used to relay traffic for wireless nodes unless the source and destination pair can communicate with each other directly. The wireless nodes actively select which access point it should be associated with, and determines whether it needs an AP's help to send messages. This addresses only the client-access point architecture and covers only basic connectivity issues.

SUMMARY OF THE INVENTION

Each wireless transport device calculates a table that each entry (FIG. 2) contains the neighboring device from which a broadcast frame originated from a particular device can be received. For broadcast frames originated from a particular device, only the frames relayed through the listed neighboring device can be accepted. Broadcast frames coming through incorrect neighboring device are duplicates and should be ignored. To facilitate the above filtering function, the broadcast frames have to carry the name or address of the originator wireless transport device. Note the frame may have come from a client of the wireless transport device therefore it is not the real source of the frame.

To filter out echo frames, broadcast frames have to carry the address information of previous hop in the transmitted frame so once the previous hop receives the frames, it can ignore these echo frames without further processing. For example, a device X either sends or relays a broadcast frame to its neighbors N1 and N2. When N1 and N2 relay the frame, they both add X in the "previous hop" field of the frame. Most likely device X will receive both these relayed frames from N1 and N2. With its address contained in the frame, device X can immediately realize it should drop the frames without processing.

Client membership announcement of a newly associated wireless client of a transport device is embedded into a broadcast frame the client generates, if it is the first frame from the client system. If the client is running common network layer protocols, the first frame is likely a broadcast frame. For example, in an IP network, the first frame from a newly booted up station usually is a broadcast frame containing either DHCP request or an ARP

request. The client membership announcement is piggybacked into the broadcast frame which saves the introduction of two different frames.

In case there are more than one edge device connecting the wireless network to a wired network, our invention is the election among the edge devices to enable only one edge device to relay broadcast traffic across the wired and wireless network.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates an example of a wireless transport network.

FIG. 2 is an example of a broadcast receiving neighbor table.

Drawings

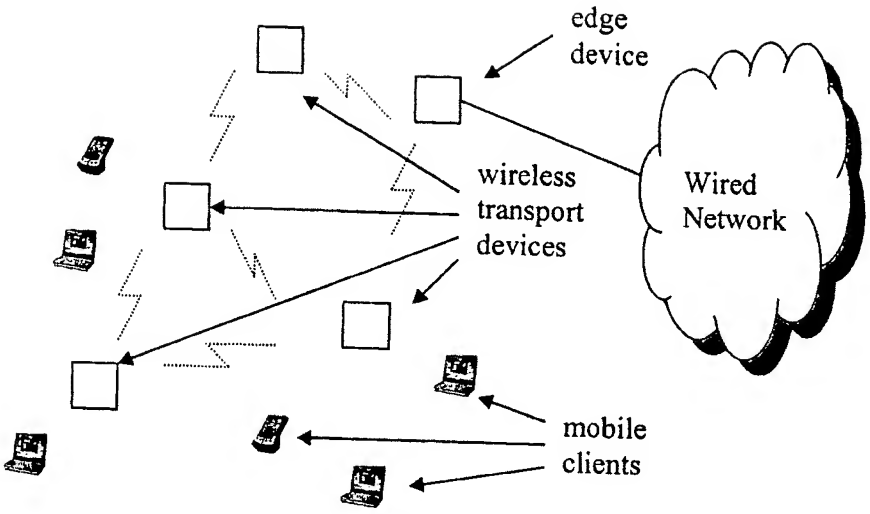

FIG. 1

Originator	Receiving Neighbor
Device 1	Device x
Device 2	Device y
Device 3	Device z

FIG. 2

PATENT APPLICATION SERIAL NO. _____

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

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PTO-1556
(5/87)